at a rate of near 13 miles per hour. The steamer *Steel Traveler* met the center of this typhoon in 123° 20′ longitude E. and 21° 00′ latitude N., the barometer having fallen on board to 711.2 mm. (28 inches), not corrected for gravity, at 8 p. m. of the 16th and two hours of calm having been observed with a steady barometer. Our observer at Basco (121° 59′ longitude E. and 20° 28′ latitude N.) reported by wireless to this office a barometric minimum as low as 714.50 mm., not corrected for gravity, recorded at 3 a. m. of the 17th with a whole gale backing from NNW. to SW. and S., thus confirming the direction of the typhoon and its rate of progress as given above. As the calm observed on board the *Steel Traveler* lasted for two hours, we suppose that the real center of the typhoon passed over her at about 9 p. m., and hence the rate of progress of the typhoon between this steamer and Basco was about 13.5 miles per hour.

The typhoon after passing near to the north of Basco continued moving westward, increasing its rate of progress to an average of about 15 miles per hour, threatening the English colony of Hongkong. Although proper and timely warnings had been given since August 17, the storm was a great calamity for Hongkong, it being considered the worst experienced there for the last 15 years. And if not for the extraordinary rate of progress of the typhoon the havoc wrought there would have been even much greater. The lowest barometric minimum was 28.66 inches (727.95 mm.); it was recorded at 10 a. m. of the 18th. The highest wind squall velocity registered during the typhoon was 130 miles an hour at 10:13 a. m. of the same day. The center passed near to the south of Hongkong. There were at least four vessels sunk, among them the *Loonsang* and twenty driven ashore. The losses of lives were considerable both afloat and ashore.

The typhoon of the Loochoos and Korea, August 22 to 28.—The first part of this typhoon up to the 22d is still somewhat uncertain with the few observations we have on hand. At 6 a. m. of the 22d the center was situated near 131° longitude E. and 27° latitude N. moving WNW. The center passed near to the south of Oshima on the same day and recurved northeastward on the 24th about 200 miles to the west of Shanghai. It traversed Korea on the 25th and the Sea of Japan on the 26th moving NE.

Other four less important typhoons.—The first of them appeared to the south of Guam on the 15th near 144° longitude E. and 11° latitude N. It moved for a short time NW., then N., and finally E., traversing in this direction the northern part of the Ladrone Islands on the 17th.

The second typhoon formed on the 19th to 20th over the China Sea NW. of Luzon in about 118° longitude E. and 19° latitude N. It moved almost due W., traversing Hainan in the afternoon of the 22d.

The third typhoon appeared also in the China Sea on the 26th in about 116° longitude E., between 19° and 20° latitude N., and moved NNW., passing about 50 miles to the east of Hongkong in the afternoon of the 27th.

The last typhoon of the month appeared almost simultaneously with the preceding one in the Pacific to the SE. of the Loochoos in about 130° longitude E., between 21° and 22° latitude N. It passed through the Loochoos as a depression of little importance in the afternoon of the 27th, but it developed into a real typhoon in the Eastern Sea while recurving northeastward. It moved very slowly, and reached the southwestern part of Japan during the night of August 30 to 31.

DETAILS OF THE WEATHER IN THE UNITED STATES.

GENERAL CONDITIONS.

ALFRED J. HENRY.

The outstanding features seem to have been (1) a movement of anticyclones across the Lake region and down the St. Lawrence Valley, and as a consequence a very substantial increase in pressure from the average level of the preceding month; (2) temperature mostly above the normal; (3) greater than normal precipitation in the majority of States. The usual details follow.

CYCLONES AND ANTICYCLONES.

By W. P. DAY.

Four disturbances formed within the area between Bermuda and the West Indies and three of these displayed the characteristic central core of the tropical hurricane. However, the only one that could be said to be of tropical origin developed just north of Haiti on the 25th, and though it followed a more or less normal path, it was very much retarded during its recurve by high pressure to the northward, the storm finally moving northeastward with considerable acceleration when released by falling pressure to the northward. Another disturbance developed hurricane characteristics on the 5th when about 300 miles northeast of Bermuda. There were some indications of this disturbance as a depression north of the Lesser Antilles during the last day or so of August. It was followed with more or less uncertainty as it recurved around Bermuda and was first noted as a storm on the 5th, as previously stated. At this time further movement was stopped by rising pressure to the north and northeast and the storm after remaining nearly stationary for two days turned northward with increasing speed as the air-pressure began to fall in that direction.

After this storm passed out of the field of observation northeast of Newfoundland, unsettled conditions continued over the area of the Gulf Stream and by the morning of the 12th another storm, extremely small but very intense, was noted about 250 miles north of Bermuda. This storm moved rapidly northeast to southeastern Newfoundland, having enlarged its area and diminished in intensity upon leaving the warm waters of the Gulf Stream. Full hurricane velocities were reported by vessels encountering this small disturbance.

A fourth disturbance developed to the northeast of the Bahamas on the 14th and 15th of the month, enlarged its area rapidly and took on the characteristics of the extra-tropical counter-current LOW.

The continental low-pressure areas were generally unimportant and normal both in number and type.

The number of high-pressure areas showed an increase over the preceding month, but HIGHS No. VII and VIII were the only ones to cause any marked depressions in temperature.